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10/537,699	06/06/2005	Daisuke Ogura	Q88299	8563

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EXAMINER
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SOBUTKA, PHILIP

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ELECTRONIC

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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/537,699  
Filing Date: June 06, 2005  
Appellant(s): OGURA, DAISUKE

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Laura Moskowitz  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed January 24, 2011 appealing from the Office action mailed June 25, 2010.

**(1) Real Party in Interest**

The examiner has no comment on the statement, or lack of statement, identifying by name the real party in interest in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The following is a list of claims that are rejected and pending in the application:

1, 2, 4-8, 11-13, 15-20 and 23-26

**(4) Status of Amendments After Final**

The examiner has no comment on the appellant's statement of the status of amendments after final rejection contained in the brief.

**(5) Summary of Claimed Subject Matter**

The examiner has no comment on the summary of claimed subject matter contained in the brief.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The examiner has no comment on the appellant's statement of the grounds of rejection to be reviewed on appeal. Every ground of rejection set forth in the Office action from which the appeal is taken (as modified by any advisory actions) is being maintained by the examiner except for the grounds of rejection (if any) listed under the

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subheading "WITHDRAWN REJECTIONS." New grounds of rejection (if any) are provided under the subheading "NEW GROUNDS OF REJECTION."

**(7) Claims Appendix**

The examiner has no comment on the copy of the appealed claims contained in the Appendix to the appellant's brief.

**(8) Evidence Relied Upon**

6,539,237

Sayers et al.

03-2003

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 2, 5, 6, 8, 11-13, 16, 17, 19, 20, 23-26 are rejected under 35 U.S.C. 102(e) as being anticipated by Sayers et al (US 6,539,237).

Consider claim 1. Sayers teaches a method of controlling a mobile communications system which comprises a control plane controller (i.e the network level control systems shown as NSS in Figure 1) and a plurality of user plane controllers (shown as the base station systems , BSS in figure 1) comprising:

implementing the plurality of user control plane controllers separate from said plurality of control plane controllers (Note that Sayers network level control systems shown as NSS in Figure 1, which would correspond to the claimed control plane is separate from the plurality of user plane controllers shown as the base station systems, BSS in figure 1);

logically subordinating each user plane controller to only one control plane controller (as shown in Sayers figure one, the user plane, i.e. base stations are subordinate to only one control plane, i.e. the system level controller shown as NSS in figure 1); effecting transfer of status information between a user plane controller and a control plane controller other than the control plane controller to which the user plane controller is logically subordinate notwithstanding that the user plane controller is logically subordinate to another of said control plane controllers (note that the claim does not require to bypass the control plane controller to which the user plane is subordinate, therefore the claim does not distinguish over status information being coordinated to another control plane via the control plane to which it is subordinate, as is shown in Sayers, when a mobile terminal changes location from the network NSS to the private network shown in figure 1 as items 14, see also column 8, line 25 – column 9, line 25).

It is noted that the preamble sets forth a radio network controller, however the term does not add any structure to the body of the claim. Since the elements of Sayers perform the claimed elements of radio control, Sayers elements would constitute the claimed radio controller.

Consider claim 2. Sayers teaches the method of controlling a mobile communications according to claim 1,

further comprising physically separating said plurality of user plane controllers from said control plane controller ( note that Sayers user and control planes, i.e the BSS and NSS planes are physically separated as shown in figure 1).

Consider claim 5. Sayers teaches the method of controlling a mobile communications system according to claim 1, further comprising, including with said status information alarm information detected in said plurality of user plane controllers (note that Sayers teaches the information includes alarm information see for example column 5, lines 58-60).

Consider claim 6. Sayers teaches the method of controlling a mobile communications system according to claim 1, further comprising, reporting from said plurality of user plane control means controllers said status information to said control plane controller upon receipt of a request for transmitting said status information from said control plane controller (note that Sayers teaching includes handoff and

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authentication which includes transmission of service request and status info between the user and control planes).

Consider claim 8. Sayers teaches the method of controlling a mobile communications system according to claim 1, further comprising, reporting from said plurality of user plane controllers said status information to said control plane controller if a change is found in said status information (note that Sayers teaching includes handoff and authentication which includes transmission of service request and status info between the user and control planes).

Consider claim 11. Sayers teaches a method of controlling a mobile communications system which comprises a plurality of control plane controllers (i.e the network level control systems shown as NSS in Figure 1) and a user plane controller (shown as the base station systems , BSS in figure 1), comprising:

implementing said user plane controller separate from said plurality of control plane controllers (Note that Sayers network level control systems shown as NSS in Figure 1, which would correspond to the claimed control plane is separate from the plurality of user plane controllers shown as the base station systems, BSS in figure 1);

logically subordinating said user plane controller to only one of said plurality of control plane controllers (as shown in Sayers figure one, the user plane, i.e. base stations are subordinate to only one control plane, i.e. the system level controller shown as NSS in figure 1);

effecting transfer of status information between the user plane controller and a plurality of said control plane controllers notwithstanding that the user plane controller is logically subordinate to only one of said control plane controllers (note that the claim does not require to bypass the control plane controller to which the user plane is subordinate, therefore the claim does not distinguish over status information being coordinated to another control plane via the control plane to which it is subordinate, as is shown in Sayers, when a mobile terminal changes location to the private network shown in figure 1 as items 14, see also column 8, line 25 – column 9, line 25).

It is noted that the preamble sets forth a radio network controller, however the term does not add any structure to the body of the claim. Since the elements of Sayers perform the claimed elements of radio control, Sayers elements would constitute the claimed radio controller.

Consider claim 12. Sayers teaches a mobile communications system comprising:  
a plurality of control plane controllers (shown as the wireless network controller, NSS and private system controllers see for example figures 1 and 15);

a plurality of user plane controllers separate from said plurality of control plane controllers (Note that Sayers network level control systems shown as NSS in Figure 1, which would correspond to the claimed control plane is separate from the plurality of user plane controllers shown as the base station systems, BSS in figure 1);

wherein each user plane controller is logically subordinate to only one of said control plane controller (as shown in Sayers figure one, the user plane, i.e. base



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stations are subordinate to only one control plane, i.e. the system level controller shown as NSS in figure 1); and

said mobile communication system further comprising: means for effecting transfer of status information between a user plane controller and any of said control plane controllers notwithstanding that each user plane controller is logically subordinate to only one of said control plane controllers (note that the claim does not require to bypass the control plane controller to which the user plane is subordinate, therefore the claim does not distinguish over status information being coordinated to another control plane via the control plane to which it is subordinate, as is shown in Sayers, when a mobile terminal changes location to the private network shown in figure 1 as items 14, see also column 8, line 25 – column 9, line 25).

It is noted that the preamble sets forth a radio network controller, however the term does not add any structure to the body of the claim. Since the elements of Sayers perform the claimed elements of radio control, Sayers elements would constitute the claimed radio controller.

Consider claim 13. Sayers teaches the mobile communications system according to claim 12, wherein said plurality of user plane controllers are physically separated from said control plane controller ( note that Sayers user and control planes, i.e the BSS and NSS planes are physically separated as shown in figure 1).

Consider claim 16. Sayers teaches the mobile communications system according to claim 12, wherein said status information includes alarm information detected in said

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plurality of user plane controllers. (Note that Sayers teaches the information includes alarm information see for example column 5, lines 58-60)

Consider claim 17. Sayers teaches the mobile communications system according to claim 12, wherein said plurality of user plane controllers further includes means for reporting said status information to said control plane controller upon receipt of a request for transmitting said status information from said control plane controller. (Note that Sayers teaching includes handoff and authentication which includes transmission of service request and status info between the user and control planes)

Consider claim 19. Sayers teaches the mobile communications system according to claim 12, wherein said plurality of user plane controllers further includes means for reporting said status information to said control plane controller if a change is found in said status information (note that Sayers teaching includes handoff and authentication which includes transmission of service request and status info between the user and control planes).

Consider claim 20. Sayers teaches the mobile communications system according to claim 12, further comprising: user equipment (Note that Sayers teaches user equipment, see figure 1).

Consider claim 23. Sayers teaches a mobile communications system comprising: a plurality of control plane controllers for storing status information in a memory (i.e the network level control systems shown as NSS in Figure 1); and a user plane controller for reporting status information of said user plane controller to said plurality of control

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plane controllers (shown as the base station systems, BSS in figure 1, column 5, lines 1-22, 45-65)

wherein said user plane controller is logically subordinate only one of said control plane controllers (as shown in Sayers figure one, the user plane, i.e. base stations are subordinate to only one control plane, i.e. the system level controller shown as NSS in figure 1); and

said mobile communication system further comprises: means for effecting transfer status information between the user plane controller and a plurality of said control plane controllers notwithstanding that the user plane controllers logically subordinate to only one of said control plane controllers (note that the claim does not require to bypass the control plane controller to which the user plane is subordinate, therefore the claim does not distinguish over status information being coordinated to another control plane via the control plane to which it is subordinate, as is shown in Sayers, when a mobile terminal changes location to the private network shown in figure 1 as items 14, see also column 8, line 25 – column 9, line 25).

It is noted that the preamble sets forth a radio network controller, however the term does not add any structure to the body of the claim. Since the elements of Sayers perform the claimed elements of radio control, Sayers elements would constitute the claimed radio controller.

Consider claim 24. Sayers teaches the mobile communications system according to claim 23, comprising: user equipment (shown as the base station systems, BSS in figure 1).

Consider claim 25. Sayers teaches the radio access network according to claim 14, including means for operating said control plane controller when user equipment located in an area of a first radio base station having a radio link established between said first radio base station and a first user plane controller subordinate to said control plane controller moves to an area of a second radio base station, said second radio base station belonging to second user plane controller subordinate to another control plane controller, to refer to this other control plane controller for status information of said second user plane controller, and determining based on the status information of said second user plane controller that is received from this other control plane controller whether or not a radio link can be added at said second user plane controller (i.e. hand-off, see column 1, line 59 – column 2, line 12, column 5, lines 1-22, 45-65).

Consider claim 26. Sayers teaches the radio access network according to claim 25, wherein said control plane controller includes means for instructing said second user plane controller through said first user plane controller to add a radio link between said second user plane controller and said second radio base station when said control plane controller determines that a radio link can be added at said second user plane controller (see column 1, line 59 – column 2, line 12, column 5, lines 1-22, 45-65).

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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Claims 4, 7, 15, 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sayers.

Consider claim 4. Sayers teaches the method of controlling a mobile communications system according to claim 1, but lacks a teaching of the method further comprising, including with said status information bandwidth information of a channel directed to the outside from said plurality of user plane controllers. Note that Sayers teaches monitoring various performance aspects, as described in column 5, lines 50-56. Official notice is taken that bandwidth is a notoriously well known aspect of performance. Therefore it would have been obvious to one of ordinary skill in the art to also monitor bandwidth in order to provide a more complete picture of performance.

Consider claim 7. Sayers teaches the method of controlling a mobile communications system according to claim 1, but lacks a teaching of the method further comprising, reporting from said plurality of user plane controllers said status information to said control plane controller at a fixed period. Note that Sayers teaches monitoring various performance aspects, as described in column 5, lines 50-56. Official notice is taken that fixed period reporting of status is a notoriously well known in the art. Therefore it would have been obvious to one of ordinary skill in the art to modify Sayers to report status at fixed times in order to ensure that performance was monitored at minimum times.

Consider claim 15. Sayers teaches the mobile communications system according to claim 12, but lacks a teaching of the method wherein said status information includes bandwidth information of a channel directed to the outside from said plurality of user plane controllers. Note that Sayers teaches monitoring various performance aspects, as described in column 5, lines 50-56. Official notice is taken that bandwidth is a notoriously well known aspect of performance. Therefore it would have been obvious to one of ordinary skill in the art to also monitor bandwidth in order to provide a more complete picture of performance.

Consider claim 18. Sayers teaches the mobile communications system according to claim 12, but lacks a teaching of the method wherein said plurality of user plane controllers further includes means for reporting said status information to said control plane controller at a fixed period. Note that Sayers teaches monitoring various performance aspects, as described in column 5, lines 50-56. Official notice is taken that fixed period reporting of status is a notoriously well known in the art. Therefore it would have been obvious to one of ordinary skill in the art to modify Sayers to report status at fixed times in order that performance was monitored at minimum times.

**(10) Response to Argument**

Claim 1 is the only claim argued: appellant's principal argument is whether the claimed "user plane controller" and "control plane controller" correspond to elements in the prior art.

*Claim 1. A method of controlling a radio network controller of a radio access network, wherein the radio network controller comprises a plurality of control plane controllers and a plurality of user plane controllers, the method comprising:*

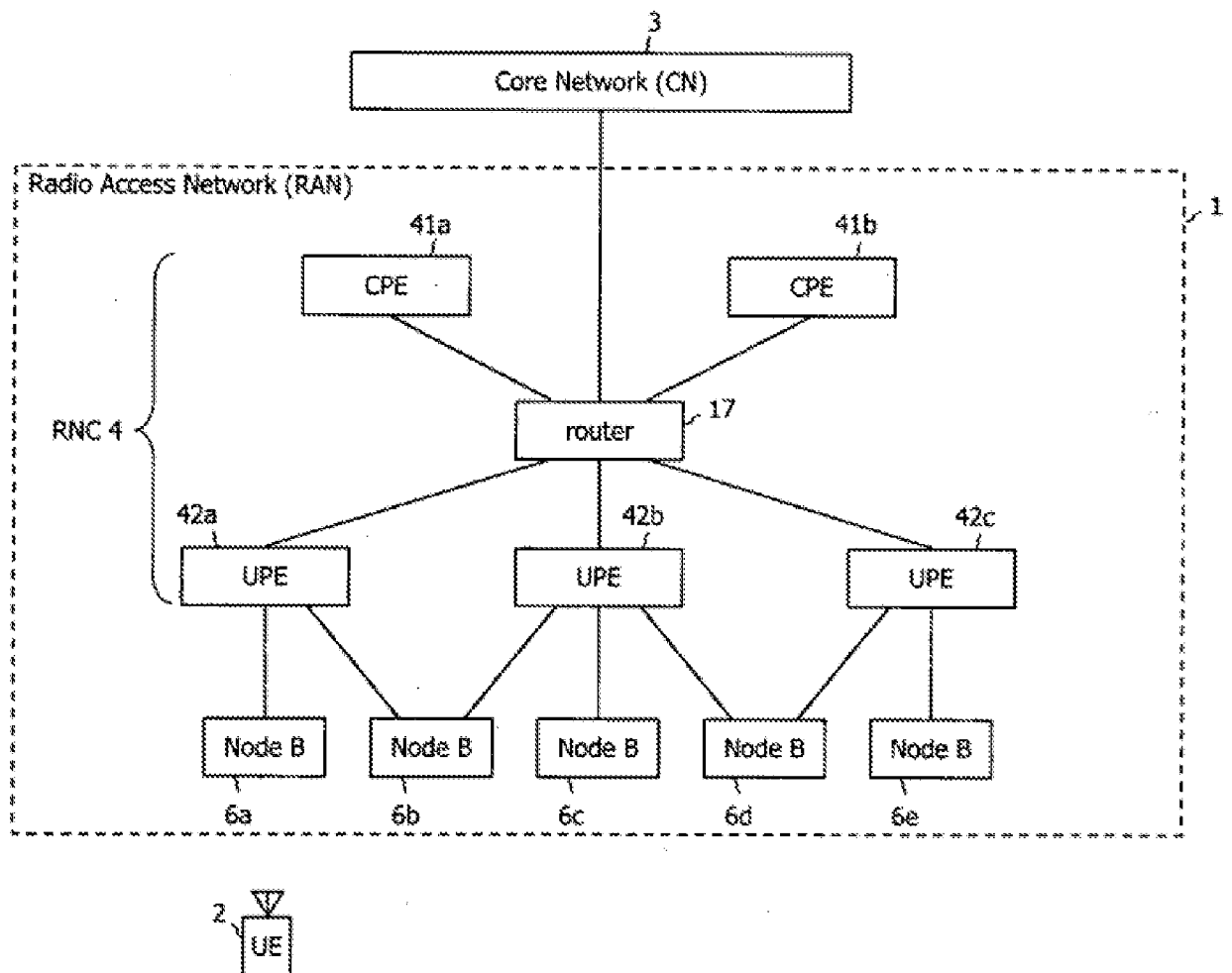
*implementing the plurality of user control plane controllers separate from said plurality of control plane controllers;*

*logically subordinating each user plane controller to only one control plane controller;*

*effecting transfer of status information between a user plane controller and a control plane controller other than the control plane controller to which the user plane controller is logically subordinate notwithstanding that the user plane controller is logically subordinate to another of said control plane controllers.*

Referring to applicants figure 2 below, the user plane controllers are shown as items 42 (UPE user plane equipment), the control plane controllers as items 41 (CPE control plane equipment). Note also that while they are show grouped in a radio network controller (RNC 4), they are claimed as being separate and that the specification notes that they are in fact physically separate.

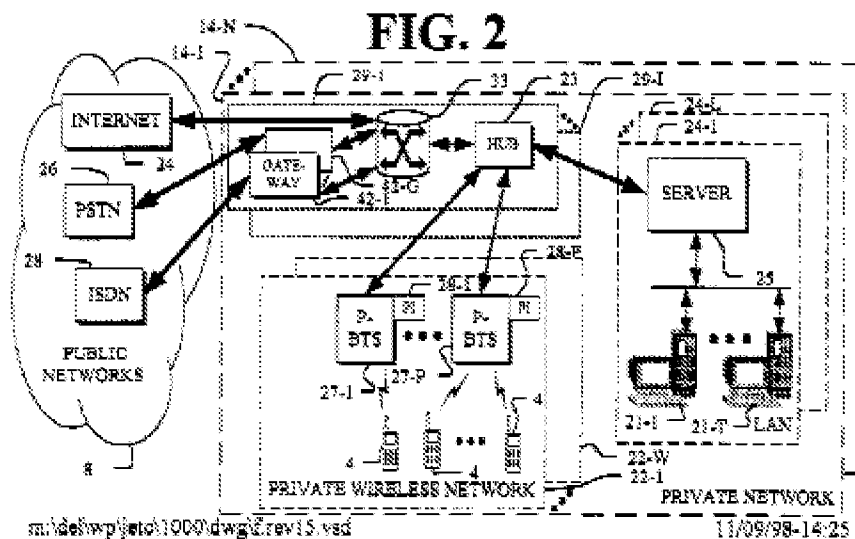
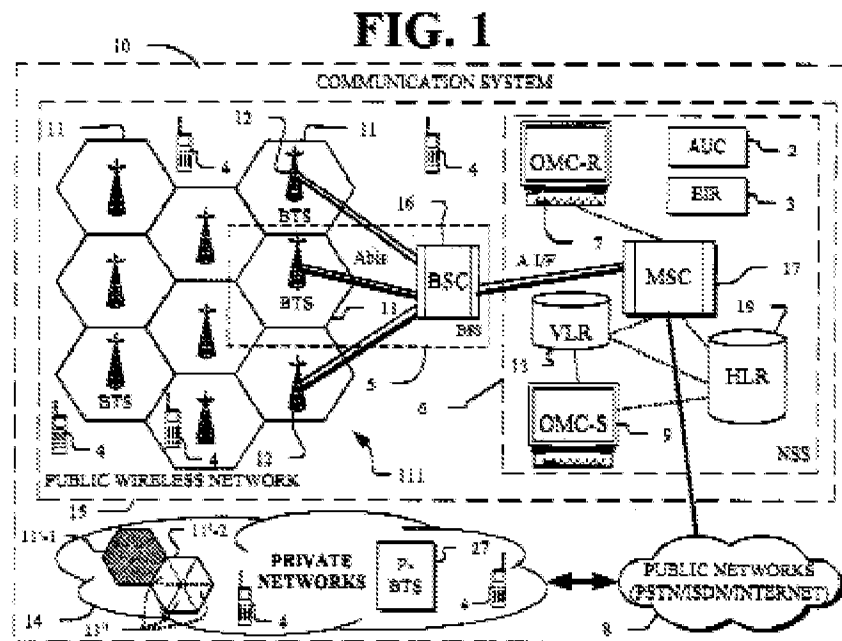




The prior art is shown in Sayers (US 6,539,237).

Referring to Sayers figure 1 below, the rejection equates Sayers NSS group in figure 1 to the control plane controllers and Sayers BSS to the claimed user plane controllers to the BSS.

(Note that figure 2 is used to address other aspects of the claim that will be addressed below).



Appellant argues that Sayers NSS does not correspond to the control plane controller, and Sayers BSS does not correspond to the user plane controller.

Regarding the claimed "control plane controller", per the specification on page 2, lines 5-9, the definition of the claimed control plane controller is "a physical integration of a function of controlling a C-plane (control plane) which is a protocol for transferring control signals". As there is no specific protocol referenced, the broadest reasonable interpretation is the plain English definition of the wording, i.e. a physical device controlling transfer of control signals.

Sayers, on columns 4-5, describes how the essential component of the NSS is the mobile switching center MSC, and goes on to describe the various call control functions of an MSC, including the HLR, VLR, call hand off, etc. As all of these control functions necessarily involve transfer of control signaling, Sayers NSS clearly corresponds to appellants definition of the control plane controller.

Regarding the claimed "user plane controller", per the specification on page 2, lines 5-9, the definition of user plane controller is "a function of controlling a U-plane (User plane) which is a protocol for transferring user data related to user equipment. As there is no specific protocol referenced, the broadest reasonable interpretation is the plain English definition of the wording, i.e. a device controlling transfer of data related to user equipment.

Sayers, on columns 3-4 describes the actives of the base stations and base station controllers, including maintaining the radio link with the user mobile station (see column 3, lines 50-65), allocation of resources to the mobile (column 3, lines 41-45 and

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56-65), as well as all interface protocols with the mobile user devices (column 3, lines 22-30), each of which clearly corresponds to transfer of data related to user signals.

While appellant does not argue the last element of the claim, namely transfer of status information between a user plane controller and a control plane controller other than the control plane controller to which the user plane controller is logically subordinate notwithstanding that the user plane controller is logically subordinate to another of said control plane controllers, it should be noted that this element too is shown in Sayers. Note that the claim does not require to bypass the control plane controller to which the user plane is subordinate, therefore the claim does not distinguish over status information being coordinated to another control plane via the control plane to which it is subordinate, as is shown in Sayers. When a mobile terminal changes location to the private network shown in figure 1 as items 14, (private network detail shown in figure 2) status information is exchanged to allow a user mobile device, in range of a BSS to communicate through the private network as shown in Sayers column 8, line 25 – column 9, line 25.

#### **(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Philip J Sobutka/

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